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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Mon Jun 25 15:28:53 EDT 2007

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\*\*\*\*\*

Reviewer Comments:

<210> 10

<211> 12

<212> PRT

<213> Homo sapiens

<220>

<221> MISC\_FEATURE

<222> (1)..(12)

<223> hnRNP B1 is defined as a human hnRNP core protein.

Correspond to amino acids 3 - 14 of hnRNP B2.

<400> 10

Lys Thr Leu Glu Thr Val Pro Leu Glu Arg Lys Lys

1 5 10

Although the <160> response is "4," 10 sequences are shown in the submitted file. See above. Also, please move the second sentence of the <223> response (begins with "Correspond") to the second line of the <223> response. Per 1.823 of the Sequence Rules, the maximum number of characters per line is 72 (includes white spaces).

<210> 1

<211> 1689

<212> DNA

<213> chicken

Please give the Genus species for the "<213> chicken" response above.

Same error in subsequent sequences.

<210> 8  
<211> 31  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MISC\_FEATURE  
<222> (1)..(31)  
<223> hnRNP A1 is defined as a human hnRNP core protein.

<220>  
<221> MISC\_FEATURE  
<222> (1)..(6)  
<223> Correspond to amino acids 16 - 21 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (7)..(7)  
<223> Xaa corresponds to amino acids 22 - 54 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (8)..(15)  
<223> Correspond to amino acids 55 - 62 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (16)..(16)  
<223> Xaa corresponds to amino acids 63 - 106 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (17)..(22)  
<223> Correspond to amino acids 107 - 112 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (23)..(23)

<223> Xaa corresponds to amino acids 113 - 145 of hnRNP A1.

The explanations for the Xaa's at locations 17,16,23 are invalid. An Xaa can only represent a single amino acid: please show the maximum number of positions, and explain that some may be missing. Also, please explain "hnRNP A1." Same error in Sequence 9.

\*\*\*\*\*

Application No: 09849967 Version No: 5.0

Input Set:

Output Set:

Started: 2007-06-22 19:34:48.713  
Finished: 2007-06-22 19:34:48.969  
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 256 ms  
Total Warnings: 0  
Total Errors: 1  
No. of SeqIDs Defined: 4  
Actual SeqID Count: 10

Error code	Error Description
E 252	Calc# of Seq. differs from actual; 4 seqIds defined; count=10

## SEQUENCE LISTING

<110> New York Medical College

<120> Splice Choice Antagonists as Therapeutic Agents

<130> 51230-00601

<140> 09849967

<141> 2001-05-08

<150> 09/849,967

<151> 2001-05-08

<160> 4

<170> PatentIn version 3.3

<210> 1

<211> 1689

<212> DNA

<213> chicken

<220>

<221> misc\_feature

<222> (1)..(1689)

<223> Full length cDNA sequence of chicken hnRNP A1.

<220>

<221> misc\_feature

<222> (141)..(1276)

<223> Open reading frame of cDNA sequence from chicken hnRNP A1.

<400> 1

gcgtctccac ccctcagcgg gcggcggtga gtgcgccagg ccagcgccgg cgtgggaccg 60

agcgggcggtg aaggcgcgag ctgaacgctg gcacggtttc ctagatctaa aagaaaggcc 120

gagttagagt acccttccaa aatggctgct attaaggaag agagagaggt ggaagattac 180

aagagaaaaa ggaagacgat cagcacaggc catgagccta aggagccaga gcagttgaga 240

aagctgttca ttggaggtct gagcttcgag acgacggatg atagcttgag agagcacttt 300

gaaaaatggg gcacactcac ggactgtgtg gtgatgagag acccaciaac aaaacgttcc 360

agaggctttg gctttgttac ttactcttgc gtggaagagg tggatgcggc catgagcgct 420

cgaccacata aggtggatgg acgtgtggtt gaaccaaaga gagcagtttc aaggagggat 480

tctgtaaaagc ctggggcgca tctcacagta aagaaaatat ttgttggtgg cattaaagaa 540

gatacagaag aatataatgt aagggggtac tttgaaacat atggcaagat cgaaacgata 600

gaagtcatgg aagacagaca aagtggaaag aaaagaggct tcgcttttgt aacttttgat 660

gatcacgata cagttgataa aattgttggt cagaaatacc atactataaa tggtcataac	720
tgcgaagata aaaaagcact ctcaaaacaa gagatgcaga ctgccagctc tcagagaggt	780
cgtgggggtg gttcaggcaa cttcatgggt cgtggaaatt ttggaggtgg tggaggaaac	840
tttggccgag gaggaaactt tgggtggaaga ggaggttatg ggggtggtgg tggcggtggt	900
gggagcagag gaagcttttg ggggtggtgat ggatacaacg gatttgggtga tgggtggcaac	960
tatggaggtg gtcttggtta tggcagcaga ggggttatg gtggtggtgg aggaccagga	1020
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ggaggcaatt ttggaggtgg taattatgga ggcagtggaa actacaatga ctttggtaac	1140
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gagcgaggag ttgtcaggaa agctgcagtt tactttgaga cagtcgtccc aaatgcatta	1380
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aaaaaaaaa	1689

<210> 2  
 <211> 378  
 <212> PRT  
 <213> Chicken

<220>  
 <221> PEPTIDE  
 <222> (1)..(378)  
 <223> Amino acid sequence of chicken hnRNP A1

<400> 2

Met	Ala	Ala	Ile	Lys	Glu	Glu	Arg	Glu	Val	Glu	Asp	Tyr	Lys	Arg	Lys
1				5				10						15	

Arg	Lys	Thr	Ile	Ser	Thr	Gly	His	Glu	Pro	Lys	Glu	Pro	Glu	Gln	Leu
			20					25					30		

Arg	Lys	Leu	Phe	Ile	Gly	Gly	Leu	Ser	Phe	Glu	Thr	Thr	Asp	Asp	Ser	35	40	45	
Leu	Arg	Glu	Gln	Phe	Glu	Lys	Trp	Gly	Thr	Leu	Thr	Asp	Cys	Val	Val	50	55	60	
Met	Arg	Asp	Pro	Gln	Thr	Lys	Arg	Ser	Arg	Gly	Phe	Gly	Phe	Val	Thr	65	70	75	80
Tyr	Ala	Thr	Val	Glu	Glu	Val	Asp	Ala	Ala	Met	Ser	Ala	Arg	Pro	His	85	90	95	
Lys	Val	Asp	Gly	Arg	Val	Val	Glu	Pro	Lys	Arg	Ala	Val	Ser	Arg	Glu	100	105	110	
Asp	Ser	Val	Lys	Pro	Gly	Ala	His	Leu	Thr	Val	Lys	Lys	Ile	Phe	Val	115	120	125	
Gly	Gly	Ile	Lys	Glu	Asp	Thr	Glu	Glu	Tyr	Asn	Leu	Arg	Gly	Tyr	Phe	130	135	140	
Glu	Thr	Tyr	Gly	Lys	Ile	Glu	Thr	Ile	Glu	Val	Met	Glu	Asp	Arg	Gln	145	150	155	160
Ser	Gly	Lys	Lys	Arg	Gly	Phe	Ala	Phe	Val	Thr	Phe	Asp	Asp	His	Asp	165	170	175	
Thr	Val	Asp	Lys	Ile	Val	Val	Gln	Lys	Tyr	His	Thr	Ile	Asn	Gly	His	180	185	190	
Asn	Cys	Glu	Asp	Lys	Lys	Ala	Leu	Ser	Lys	Gln	Glu	Met	Gln	Thr	Ala	195	200	205	
Ser	Ser	Gln	Arg	Gly	Arg	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Met	Gly	Arg	210	215	220	
Gly	Asn	Phe	Gly	Gly	Gly	Gly	Gly	Asn	Phe	Gly	Arg	Gly	Gly	Asn	Phe	225	230	235	240
Gly	Gly	Arg	Gly	Gly	Tyr	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ser	Arg	245	250	255	

Gly Ser Phe Gly Gly Gly Asp Gly Tyr Asn Gly Phe Gly Asp Gly Gly  
260 265 270

Asn Tyr Gly Gly Gly Pro Gly Tyr Gly Ser Arg Gly Gly Tyr Gly Gly  
275 280 285

Gly Gly Gly Pro Gly Tyr Gly Asn Pro Gly Gly Gly Tyr Gly Gly Gly  
290 295 300

Gly Gly Gly Tyr Gly Gly Tyr Asn Glu Gly Gly Asn Phe Gly Gly Gly  
305 310 315 320

Asn Tyr Gly Gly Ser Gly Asn Tyr Asn Asp Phe Gly Asn Tyr Ser Gly  
325 330 335

Gln Gln Gln Ser Asn Tyr Gly Pro Met Lys Gly Gly Gly Ser Phe Gly  
340 345 350

Gly Arg Ser Ser Gly Ser Pro Tyr Gly Gly Gly Tyr Gly Ser Gly Ser  
355 360 365

Gly Ser Gly Gly Tyr Gly Gly Arg Arg Phe  
370 375

<210> 3  
<211> 320  
<212> PRT  
<213> Homo sapiens

<220>  
<221> PEPTIDE  
<222> (1)..(320)  
<223> Amino acid sequence of human hnRNP A1

<400> 3

Met Ser Lys Ser Glu Ser Pro Lys Glu Pro Glu Gln Leu Arg Lys Leu  
1 5 10 15

Phe Ile Gly Gly Leu Ser Phe Glu Thr Thr Asp Glu Ser Leu Arg Ser  
20 25 30

His Phe Glu Gln Trp Gly Thr Leu Thr Asp Cys Val Val Met Arg Asp  
35 40 45



Pro Asn Thr Lys Arg Ser Arg Gly Phe Gly Phe Val Thr Tyr Ala Thr  
50 55 60

Val Glu Glu Val Asp Ala Ala Met Asn Ala Arg Pro His Lys Val Asp  
65 70 75 80

Gly Arg Val Val Glu Pro Lys Arg Ala Val Ser Arg Glu Asp Ser Gln  
85 90 95

Arg Pro Gly Ala His Leu Thr Val Lys Lys Ile Phe Val Gly Gly Ile  
100 105 110

Lys Glu Asp Thr Glu Glu His His Leu Arg Asp Tyr Phe Glu Gln Tyr  
115 120 125

Gly Lys Ile Glu Val Ile Glu Ile Met Thr Asp Arg Gly Ser Gly Lys  
130 135 140

Lys Arg Gly Phe Ala Phe Val Thr Phe Asp Asp His Asp Ser Val Asp  
145 150 155 160

Lys Ile Val Ile Gln Lys Tyr His Thr Val Asn Gly His Asn Cys Glu  
165 170 175

Val Arg Lys Ala Leu Ser Lys Gln Glu Met Ala Ser Ala Ser Ser Ser  
180 185 190

Gln Arg Gly Arg Ser Gly Ser Gly Asn Phe Gly Gly Gly Arg Gly Gly  
195 200 205

Gly Phe Gly Gly Asn Asp Asn Phe Gly Arg Gly Gly Asn Phe Ser Gly  
210 215 220

Arg Gly Gly Phe Gly Gly Ser Arg Gly Gly Gly Gly Tyr Gly Gly Ser  
225 230 235 240

Gly Asp Gly Tyr Asn Gly Phe Gly Asn Asp Gly Ser Asn Phe Gly Gly  
245 250 255

Gly Gly Ser Tyr Asn Asp Phe Gly Asn Tyr Asn Asn Gln Ser Ser Asn  
260 265 270

Phe Gly Pro Met Lys Gly Gly Asn Phe Gly Gly Arg Ser Ser Gly Pro

275

280

285

Tyr Gly Gly Gly Gly Gln Tyr Phe Ala Lys Pro Arg Asn Gln Gly Gly  
 290 295 300

Tyr Gly Gly Ser Ser Ser Ser Ser Tyr Gly Ser Gly Arg Arg Phe  
 305 310 315 320

&lt;210&gt; 4

&lt;211&gt; 1136

&lt;212&gt; DNA

&lt;213&gt; Chicken

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(1136)

&lt;223&gt; Open reading frame of cDNA for chicken hnRNP A1

&lt;400&gt; 4

aatggctgct attaaggaag agagagaggt ggaagattac aagagaaaaa ggaagacgat 60

cagcacaggc catgagccta aggagccaga gcagttgaga aagctgttca ttggaggtct 120

gagcttcgag acgacggatg atagcttgag agagcacttt gaaaaatggg gcacactcac 180

ggactgtgtg gtgatgagag acccaciaaac aaaacgttcc agaggctttg gctttgttac 240

ttactcttgc gtggaagagg tggatgcggc catgagcgct cgaccacata aggtggatgg 300

acgtgtgggt gaaccaaaga gagcagtttc aaggaggat tctgtaaagc ctggggcgca 360

tctcacagta aagaaaatat ttgttggtgg cattaaagaa gatacagaag aatataat 420

aaggggggtac tttgaaacat atggcaagat cgaaacgata gaagtcatgg aagacagaca 480

aagtggaaaag aaaagaggct tcgcttttgt aacttttgat gatcacgata cagttgataa 540

aattgttggt cagaaatacc atactataaa tggtcataac tgcgaagata aaaaagcact 600

ctcaaaacaa gagatgcaga ctgccagctc tcagagaggt cgtgggggtg gttcaggcaa 660

cttcattgggt cgtggaaatt ttggaggtgg tggaggaaac tttggccgag gaggaaactt 720

tgggtggaaga ggaggctatg ggggtggtgg tggcgggtgg gggagcagag gaagctttgg 780

gggtggtgat ggatacaacg gatttggtga tgggtggcaac tatggaggtg gtcttggtta 840

tggcagcaga ggggggttatg gtggtggtgg aggaccagga tatggaaacc caggtggtgg 900

atatggaggt ggaggaggag gatatggtgg ctacaatgaa ggaggcaatt ttggaggtgg 960

taattatgga ggcagtggaa actacaatga ctttggtaac tacagtggac agcagcagtc 1020

caattacggt cccatgaaag gtggtggcag ttttgggtgt agaagttcag gcagtccta 1080

tgggtggtgt tatggatctg gaagtggaag tgggggctat ggtggtagaa gattct 1136

<210> 5  
<211> 10  
<212> RNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)..(10)  
<223> Exonic splice silencer (ESS) nucleic acid sequence for hnRNP A1

<400> 5

uagggcaggc 10

<210> 6  
<211> 10  
<212> RNA  
<213> Chicken

<220>  
<221> misc\_feature  
<222> (1)..(10)  
<223> Exonic splice silencer (ESS) nucleic acid sequence for hnRNP A1

<400> 6

uagggagggc 10

<210> 7  
<211> 8  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)..(1)  
<223> Xaa represents a Lysine or an Arginine

<220>  
<221> SITE  
<222> (3)..(3)  
<223> Xaa represents a phenylalanine or tyrosine

<220>  
<221> SITE  
<222> (4)..(4)  
<223> Xaa represents a glycine or alanine

<220>  
<221> misc\_feature  
<222> (7)..(7)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> SITE  
<222> (8)..(8)  
<223> Xaa represents a phenylalanine or tyrosine

<400> 7

Xaa Gly Xaa Xaa Pro Val Xaa Xaa  
1 5

<210> 8  
<211> 31  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MISC\_FEATURE  
<222> (1)..(31)  
<223> hnRNP A1 is defined as a human hnRNP core protein.

<220>  
<221> MISC\_FEATURE  
<222> (1)..(6)  
<223> Correspond to amino acids 16 - 21 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (7)..(7)  
<223> Xaa corresponds to amino acids 22 - 54 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (8)..(15)  
<223> Correspond to amino acids 55 - 62 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (16)..(16)  
<223> Xaa corresponds to amino acids 63 - 106 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (17)..(22)  
<223> Correspond to amino acids 107 - 112 of hnRNP A1.

<220>  
<221> MISC\_FEATURE  
<222> (23)..(23)  
<223> Xaa corresponds to amino acids 113 - 145 of hnRNP A1.

<220>  
 <221> MISC\_FEATURE  
 <222> (24)..(31)  
 <223> Correspond to amino acids 146 - 153 of hnRNP A1.  
  
 <400> 8  
  
 Leu Phe Ile Gly Gly Leu Xaa Arg Gly Phe Gly Phe Val Thr Tyr Xaa  
 1 5 10 15

Ile Phe Val Gly Gly Ile Xaa Arg Gly Phe Ala Phe Val Thr Phe  
 20 25 30

<210> 9  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (1)..(31)  
 <223> hnRNP A2 is defined as a human hnRNP core protein.

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(6)  
 <223> Correspond to amino acids 11 - 16 of hnRNP A2.

<220>  
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 <222> (7)..(7)  
 <223> Xaa corresponds to amino acids 17 - 49 of hnRNP A2.

<220>  
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 <222> (8)..(15)  
 <223> Correspond to amino acids 50 -57 of hnRNP A2.

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa corresponds to amino acids 58 - 101 of hnRNP A2.

<220>  
 <221> MISC\_FEATURE  
 <222> (17)..(22)  
 <223> Correspond to amino acids 102 -107 of hnRNP A2.

<220>  
 <221> MISC\_FEATURE  
 <222> (23)..(23)  
 <223> Xaa corresponds to amino acids 108 - 140 of hnRNP A2.

<220>

<221> MISC\_FEATURE

<222> (24)..(31)

<223> Correspond to amino acids 141 - 148 of hnRNP A2.

<400> 9

Leu Phe Ile Gly Gly Leu Xaa Arg Gly Phe Gly Phe Val Thr Phe Xaa  
1 5 10 15

Leu Phe Val Gly Gly Ile Xaa Arg Gly Phe Gly Phe Val Thr Phe  
20 25 30

<210> 10

<211> 12

<212> PRT

<213> Homo sapiens

<220>

<221> MISC\_FEATURE

<222> (1)..(12)

<223> hnRNP B1 is defined as a human hnRNP core protein.

Correspond to amino acids 3 - 14 of hnRNP B2.

<400> 10

Lys Thr Leu Glu Thr Val Pro Leu Glu Arg Lys Lys  
1 5 10